Placement companies list sheet by Arsh Goyal

**Day = 1(‎04-‎05-‎2022)**

**Q-1=> Given an array of strings, return all groups of strings that are anagrams** (<https://practice.geeksforgeeks.org/problems/print-anagrams-together/1/#>)

hint\_1=> we can do by the normal thing compare the each string with others using a check vector to store the apearence of cahracters and by use visited vector to track the strings which are already checked.

hint\_2=> we can use map for which we can sort the string and then use it as a key for map and store the strings equal to it in a value.

**Q-2=> Overlapping rectangles** (<https://practice.geeksforgeeks.org/problems/overlapping-rectangles1924/1/#>)

hint\_1=> we only have to check that the position of rectangles means rectanles are along left side or right side and they are above or below.

**Q-3=> Count the subarrays having product less than k** (<https://practice.geeksforgeeks.org/problems/count-the-subarrays-having-product-less-than-k1708/1/#>)

hint\_1=> we can use sliding window aproch in this question and take care of case when the ele of array is greater than the k then we have to neglect that ele.

hint\_2=> total sum of subarray of ele n in which m are consider in previous one is (n\*(n+1))/2 - (m\*(m+1))/2.

**Day = 2(‎05-‎05-‎2022)**

**Q-4=> Run Length Encoding (**[**https://practice.geeksforgeeks.org/problems/run-length-encoding/1/#**](https://practice.geeksforgeeks.org/problems/run-length-encoding/1/#)**)**

hint\_1=> we can do it in o(n) space complaxity but for o(1) complaxity we have to think about s.erase() and s.insert() function.

**Q-5=> Find Missing And Repeating (**[**https://practice.geeksforgeeks.org/problems/find-missing-and-repeating2512/1/#**](https://practice.geeksforgeeks.org/problems/find-missing-and-repeating2512/1/#)**)**

hint\_1=> we can do it in o(n) space complaxity using that a-b is = sum of n numbers - sum of given array but for o(1) complaxity we have to think about **making each element of array -ve then the the index of +ve number is mising one and index of allready -ve number is repeted.**

**trick=> we can also use above technic to find only repeted element in array**

**Day = 4(‎07-‎05-‎2022)**

**Q-6=> Greatest Common Divisor of Strings (**[**https://leetcode.com/problems/greatest-common-divisor-of-strings/**](https://leetcode.com/problems/greatest-common-divisor-of-strings/)**)**

hint\_1=> first the question is simple we have to find gcd of two string so for that if smalest string is present in big one then start removing the part of smalest string from big str and then repeat the same proces til we get one of the str=0 or when small string is not present in big one for first one ans is second str and for second case ans is empty str.

**Q-7=> Decode the string (**[**https://practice.geeksforgeeks.org/problems/decode-the-string2444/1#**](https://practice.geeksforgeeks.org/problems/decode-the-string2444/1#)**)**

**Q-8=> Find the kid which gets tha damaged toy (**[**https://practice.geeksforgeeks.org/problems/find-the-position-of-m-th-item1723/1/**](https://practice.geeksforgeeks.org/problems/find-the-position-of-m-th-item1723/1/)**)**

hint\_1=> n==1 aur agar % wala 0 aa raha hahi to in do case ka dhyan rakhna hai.

**Day = 5(‎08-‎05-‎2022)**

**Q-9=> Given a pattern containing only I's and D's. I for increasing and D for decreasing. Devise an algorithm to print the minimum number following that pattern. (**[**https://practice.geeksforgeeks.org/problems/number-following-a-pattern3126/1#**](https://practice.geeksforgeeks.org/problems/number-following-a-pattern3126/1#)**)**

hint\_1=> hame apna number 1 se hi start karna hai aur jab bhi string me 'D' aaye to hame peeche aana hai tab tak jab tak ki hame 'I' na mil jaye aur tab tak apne ans me digits ko badhate rahna hai aur phit count ko 1 se badha dena hai aur jab 'I' ho to bas count+1 ka add karna hai.

**Q-10=> Find total number of Squares in a N\*N chessboard (**[**https://practice.geeksforgeeks.org/problems/squares-in-nn-chessboard1801/1#**](https://practice.geeksforgeeks.org/problems/squares-in-nn-chessboard1801/1#)**)**

hint\_1=> ye sum of square of first N number ke = hoga bas integer overflow ka dhyan rakhna hai.

**Q-11=> Minimum Size Subarray Sum (**[**https://leetcode.com/problems/minimum-size-subarray-sum/**](https://leetcode.com/problems/minimum-size-subarray-sum/)**)**

hint\_1=> simple sliding window problem, aur log(N) wale solution ke liye ham ek sum table bna lenge jisme ham starting se ith position tak ka sum store karenge phir i se lekar n tk loop me ham har bar binary search lagayenge i se n tak aur condition ye rahega ki sum[mid] - sum[i] > t.

**Q-12=>Array Pair Sum Divisibility Problem (**[**https://practice.geeksforgeeks.org/problems/array-pair-sum-divisibility-problem3257/1#**](https://practice.geeksforgeeks.org/problems/array-pair-sum-divisibility-problem3257/1#)**)**

hint\_1=> hame sirf ele%k se matlab hai pahle ek hash banao jisme k tak ke sare modul kitne bar aaye hue hai ye likha ho aur uske bad array ke sare ele ko 0 se k ke beech me kar lenge (v[i]%k) phir chek karenge ki kisi i ke liye k-i modulo wale me = hai ki nahi bas 0 aur k/2 wale ke liye check karna hai ki wo pair me hi ho means total acuurence%2 ==0 ho.

**Q-13=>Path with Maximum Probability**

**(**[**https://leetcode.com/problems/path-with-maximum-probability/**](https://leetcode.com/problems/path-with-maximum-probability/)**)**

hint\_1=> isme hame dijkstra's algorithem ka use karna hai bas yahi change karna hai ki jaha pe ham dijakasta's me minimum find karte the add karke wahi yaha pe ham maximum find karenge multiply karke aur set ko bhi reverese me karenge maximum pahle.

**Q-14=>Maximum performence of a team ( IMP )**

**(**[**https://leetcode.com/problems/maximum-performance-of-a-team/**](https://leetcode.com/problems/maximum-performance-of-a-team/)**)**

hint\_1=> isme hame pale dono vector ko eff ke basis pe sort karna hai decreasing order me phir uspe loop chalana hai priority queu me sirf k element ke sath;

**Q-15=>Remove Colored Pieces if Both Neighbors are the Same Color**

**(**[**https://leetcode.com/problems/remove-colored-pieces-if-both-neighbors-are-the-same-color/submissions/**](https://leetcode.com/problems/remove-colored-pieces-if-both-neighbors-are-the-same-color/submissions/)**)**

hint\_1=> isme simple aise a aur b ko find karna hai jo a aur b ke beech me ho;

**Q-16=>Generate Random Point in a Circle**

**(**[**https://leetcode.com/problems/generate-random-point-in-a-circle/**](https://leetcode.com/problems/generate-random-point-in-a-circle/)**)**

hint\_1=> isme hame ye yaad rakhna hai ki kisi point (a,b) se r doori pe theta angle pe point ka co-ordinate (a+r\*cos(theta) , b+ r\*sin(theta)) hota hai; iss case me r radius se chhota hona chahiye aur iske liye ham rand()/rand\_max stl ka use karsakte hai ye ham 0 se 1 ke beech ka number dega phir isk multipli radi. me kar ke r mil jayega ;

**Q-17=>Division without using multiplication, division and mod operator (IMP)**

**(**[**https://leetcode.com/problems/divide-two-integers/**](https://leetcode.com/problems/divide-two-integers/)**)**

hint\_1=> isme ham bit ka use hai bhut achha wala (<https://www.youtube.com/watch?v=ZhwqdRMNAU0>) ye wala video dekh lo ek bar;

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**Q-18=>Word Search (**[**https://practice.geeksforgeeks.org/problems/word-search/1/#**](https://practice.geeksforgeeks.org/problems/word-search/1/#)**)**

hint\_1=> isme hame bas simple backtraking ka use karna hai bas;

**Q-19=>Find the missing no in string (**[**https://practice.geeksforgeeks.org/problems/find-the-missing-no-in-string/1/#**](https://practice.geeksforgeeks.org/problems/find-the-missing-no-in-string/1/#)**)**

hint\_1=> isme hame pahle har ek length ke digit ke liye check karna hoga 1 se 6 tak phir ham uske baad starting digit se loop chalayenge aur agar kisi loop me valid string hai aur mising numbe hai to return kar denge; last wale condition ka matlab hai ki agar pahle wala number apne aage wale se 3 chhota hai means ye valid string nahi hai;

**Q-20=>Largest number in K swaps (**[**https://practice.geeksforgeeks.org/problems/largest-number-in-k-swaps-1587115620/1/#**](https://practice.geeksforgeeks.org/problems/largest-number-in-k-swaps-1587115620/1/#)**)**

hint\_1=> isme hame backtracking ka use karna hai aur har bar kisi number ke baad me jo sabse maximum number hai use usse hi replace karna hai;

**Q-21=>Number of Provinces (**[**https://leetcode.com/problems/number-of-provinces/**](https://leetcode.com/problems/number-of-provinces/)**)**

hint\_1=> isme hame sirf number of disconected component nikalne hai graph ke;

**Q-22=>Course Schedule II (**[**https://leetcode.com/problems/course-schedule-ii/**](https://leetcode.com/problems/course-schedule-ii/)**)**

hint\_1=> isme hame sirf find karna hai ki cycle hai ki nhai aur agar nahi hai to topological short print karna hai;